

Clinical Resource Guide: Alternatives to ABH Topical Gel

INTRODUCTION

Nausea is a distressing symptom that often plagues patients and their caregivers during the challenging end-of-life journey. It can have various underlying causes, demanding a nuanced approach for successful management and provision of comfort to hospice patients. This guide is tailored to empower hospice care teams with the insights and strategies to assess, mitigate, and expertly manage nausea symptoms through the development of patient-specific treatment regimens while considering alternatives to ABH topical gel, as it may not be the most effective treatment option for hospice patients. The medications in this gel aren't readily absorbed via topical route, therefore providing little to no benefit. It has been studied that the act of applying the gel itself is what may attribute to the anti-nausea effects.

Pharmacist Corner Objectives

- 1.) Define ABH topical gel and its reasons for caution in hospice care
- 2.) Develop an alternative treatment plan other than ABH to address symptoms of nausea
- 3.) Recommend a monitoring plan and determine when to adjust therapy as indicated

ABH TOPICAL GEL DEFINED

ABH gel is a compounded medication that combines three active ingredients commonly used in hospice care:

1. **Ativan** (Lorazepam): A benzodiazepine used for anxiety and agitation. In hospice care, it may help manage symptoms of anxiety, restlessness, and terminal agitation.
2. **Benadryl** (Diphenhydramine): An antihistamine that can alleviate symptoms like insomnia, itching, and nausea.
3. **Haldol** (Haloperidol): An antipsychotic medication used to manage symptoms of delirium, hallucinations, and severe agitation in hospice patients.

It is thought that, in combination, these three active ingredients can help combat nausea and vomiting in a compounded topical gel that is applied to the wrists of the patient. However, according to several studies, **the active ingredients are not absorbed through the skin in significant amounts**, if any at all.

The benefits are attributed to the **act of applying the gel itself, which may stimulate acupressure points**. In addition, ABH topical gel can be an expensive choice for anti-nausea medication that has shown no proven benefit. Instead, the following alternatives may be considered for anti-nausea therapy:

MANAGEMENT OF NAUSEA

Alternative Treatment Strategies					
Medication					
	Description	Contraindications	Dosing	Adverse Effects	Cost/fill
Ondansetron	<ul style="list-style-type: none"> Antiemetic medication Blocks serotonin in the GI tract 	Concurrent use of apomorphine	Oral: 4-8mg Q6-8H	Headache, constipation, dizziness	~\$17-\$29
Lorazepam	<ul style="list-style-type: none"> Benzodiazepine used for anticipatory nausea Anxiety-induced nausea 	Acute narrow-angle glaucoma	Oral: 0.5-1mg Q8H	Confusion, sedation, delirium	~\$15
Metoclopramide	<ul style="list-style-type: none"> Prokinetic agent Enhances gastric emptying and reduces nausea 	History of tardive dyskinesia, Pheochromocytoma	Oral: 10-20mg Q6-8H	EPS, sedation	~\$18
Dexamethasone	<ul style="list-style-type: none"> Steroid medication Anti-inflammatory action can alleviate nausea 	Systemic fungal infections	Oral: 4-20mg Q12-24H	Insomnia, increased appetite, mood changes	~\$28
Prochlorperazine	<ul style="list-style-type: none"> Antipsychotic medication with antiemetic properties Blocks dopamine receptors in the brain 	Parkinson's disease	Oral: 10mg Q6H Rectal: 25mg Q12H	EPS, sedation	Tab*: ~\$17 Sup: ~\$43
Promethazine	<ul style="list-style-type: none"> Antihistamine medication with antiemetic properties Blocks histamine receptors in the brain 	Hypersensitivity to promethazine	Oral, rectal: 12.5-25mg Q4-6H PRN, max 50mg/day	Sedation, dry mouth, constipation	Tab*: ~\$8 Sup: ~\$66
Meclizine	<ul style="list-style-type: none"> Antihistamine medication with antiemetic properties Blocks histamine receptors in the brain 	Hypersensitivity to meclizine	Oral: 25-50mg Q6H	Sedation, dry mouth, constipation	~\$10
Scopolamine	<ul style="list-style-type: none"> Anticholinergic medication Reduces nausea by acting on the CNS 	Closed-angle glaucoma	Transdermal patch: Apply 1 patch behind the ear Q72H	Dry mouth, blurred vision, drowsiness	~\$53

Non-Pharmacological					
	Indications	Contraindications	Dosing	Adverse Effects	Cost/fill
Acupressure wristbands/wrist massage	<ul style="list-style-type: none"> Pressure on P6 acupressure point (inner arm near wrist) can reduce nausea 	None	Can be done a few times a day	Generally well tolerated	~\$10 for wristbands, no cost for massage
Ginger supplements	<ul style="list-style-type: none"> Natural antiemetic properties 	Allergic to ginger	Oral chews: 2 chews, up to 4 a day	Higher doses may increase risk of bleeding, and may lower blood sugar	~\$10
Relaxation techniques	<ul style="list-style-type: none"> Deep breathing, mindfulness, and guided imagery can reduce anxiety-related nausea 	None	Can be done a few times a day	Generally well tolerated	No cost

*Tabs can be given rectally to save on cost!

SUMMARY

Nausea can be a very distressing experience, especially in the hospice setting, and while ABH topical gel has been frequently used, it is not the best choice for relieving symptoms. Reliance on alternative pharmacologic medications and nonpharmacologic interventions is not only recommended, but necessary in most cases to effectively manage nausea. Identification of contributing factors is essential to symptom resolution, as well. If pharmacologic intervention is required, after initiating therapy, patients should be reassessed regularly to determine efficacy and tolerability of medication regimen. For questions regarding patient-specific scenarios, please call BetterRX for a Clinical Pharmacy Consultation.

References

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- 2.) Smith, T. & Ritter, Joseph & Coyne, Patrick & Parker, G. & Dodson, P. & Fletcher, D. (2011). Testing the cutaneous absorption of lorazepam, diphenhydramine, and haloperidol gel (ABH gel) used for cancer-related nausea. *Journal of Clinical Oncology.* 29. 9021-9021. 10.1200/jco.2011.29.15_suppl.9021.
- 3.) Smith TJ, Ritter JK, Poklis JL, Fletcher D, Coyne PJ, Dodson P, Parker G. ABH gel is not absorbed from the skin of normal volunteers. *J Pain Symptom Manage.* 2012 May;43(5):961-6. doi: 10.1016/j.jpainsymman.2011.05.017.
- 4.) Acupressure for nausea and vomiting (no date) Memorial Sloan Kettering Cancer Center. Available at: <https://www.mskcc.org/cancer-care/patient-education/acupressure-nausea-and-vomiting>
- 5.) Ginger benefits (2022) Johns Hopkins Medicine. Available at: <https://www.hopkinsmedicine.org/health/wellness-and-prevention/ginger-benefits>
- 6.) Ondansetron package insert.
- 7.) Lorazepam package insert.
- 8.) Metoclopramide package insert.
- 9.) Dexamethasone package insert.
- 10.) Prochlorperazine package insert.
- 11.) Promethazine package insert.
- 12.) Meclizine package insert.
- 13.) Scopolamine package insert.